

REMARKS

This paper responds to the Office Action mailed December 12, 2007.

In response to the claim rejections under 35 USC 112, claims 1, 22, 23 and 41 have been amended to address the specific grounds for rejection identified.

In response to the objection raised in paragraph 3, Claim 38 is identified as a claim withdrawn from consideration.

In response to the objection that the independent claims do not specify how the electrical signal is used to provide information concerning the characteristics of individual spans, each independent claim has been amended to clarify that this information is derived "by spatially resolving non-linear distortion from different parts of the optical communications link".

Basis is at page 3 line 25, and this is indeed the essence of the system and method of the invention.

Claims 1 to 5, 7, 15-17, 22-29, 37, 41 and 42 stand rejected under 35 USC 103(a) as being unpatentable over Franco et al.

The instant invention relates to a system in which electrical analysis of a received signal which has been transported across an optical network can give information concerning individual spans of the optical network.

The application discloses many different analyses which can be carried out on the received optical signal after it has been converted into the electrical domain. These analyses all have in common that they are based on spatially resolving the non-linear distortion, i.e. identifying the location along the span at which a non-linear distortion has been introduced. This enables diagnosis implemented only at the receiver to be used to identify the location of faults (or other characteristics) along the link.

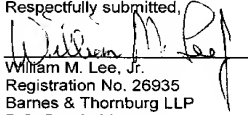
Franco et al. (US 6 538 788) discloses a method and system for reducing noise in a long-distance optical communications system (see title, abstract). The Examiner has cited columns 10 to 13 in respect of the claimed feature of deriving characteristics of individual spans. However, there is no disclosure or suggestion of this approach at all in Franco et al. Franco et al. discloses adapting signals to the characteristics of the optical transmission line, but this does not equate to analysis in the electrical domain of a received signal to provide information concerning the characteristics of different spans of the optical link, as claimed. The amendments to the independent claims identified above further distinguish over Franco et al.

The approach in Franco et al. is to use filtering in order to improve the quality parameter. Franco et al. is of no relevance at all to the identification of nonlinearities at different positions along the optical link, and particularly does not provide any suggestion of deriving any such information from a digital analysis of a received signal in the electrical domain.

It is therefore submitted that this application is now in condition for allowance. Such action is respectfully solicited.

March 5, 2008

Respectfully submitted,



William M. Lee, Jr.
Registration No. 26935
Barnes & Thornburg LLP
P.O. Box 2786
Chicago, Illinois 60690-2786
(312) 214-4800
(312) 759-5646 – Fax